

|   |   |    |                             |                               |                 |
|---|---|----|-----------------------------|-------------------------------|-----------------|
| Substitute for form 1449/PTO  |   |    | <b>Complete if Known</b>    |                               |                 |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    | <b>Application Number</b>   | 10/729,830-Conf. #8653        |                 |
|   |   |    | <b>Filing Date</b>          | December 5, 2003              |                 |
|   |   |    | <b>First Named Inventor</b> | Florian Van der Mulbe         |                 |
|   |   |    | <b>Art Unit</b>             | 1636                          |                 |
|   |   |    | <b>Examiner Name</b>        | Jennifer A. Dunston           |                 |
| <b>Sheet</b>  | 1 | of | 3                           | <b>Attorney Docket Number</b> | 22122-00009-US1 |

| U.S. PATENT DOCUMENTS |          |  |                 |                             |   |   |
|-----------------------|----------|--|-----------------|-----------------------------|---|---|
| Examiner Initials*    | Cite No. | Document Number                          |                 | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|                       |          | Number-Kind Code <sup>2</sup> (if known) |                 |                             |   |   |
|                       | AN       | US                                       | 3,906,092       | 09-16-1975                  | Hilleman et al                                  |   |
|                       | AO       | US                                       | 5,663,153       | 09-02-1997                  | Hutcherson, et al.                              |   |
|                       | AQ       | US                                       | 5,965,720       | 10-12-1999                  | Gryaznov et al.                                 |   |
|                       | AR       | US                                       | 6,239,116 B1    | 05-29-2001                  | Krieg, et al.                                   |   |
|                       | AS       | US                                       | 6,322,967       | 11-27-2001                  | Parkin  |   |
|                       | AT       | US                                       | 6,406,705       | 06-18-2002                  | Davis, et al.                                   |   |
|                       | AU       | US                                       | 6,514,948       | 02-04-2003                  | Raz, et al.                                     |   |
|                       | AV       | US                                       | 6,552,006       | 04-22-2003                  | Raz, et al.                                     |   |
|                       | AW       | US                                       | 6,589,940       | 07-08-2003                  | Raz, et al.                                     |   |
|                       | AX       | US                                       | 6,610,661       | 08-26-2003                  | Carson et al.                                   |   |
|                       | AY       | US                                       | 6,664,066 B2    | 11-06-2003                  | Parks   |   |
|                       | AZ       | US                                       | 7,208,478       | 04-24-2007                  | Carson et al.                                   |   |
|                       | AA1      | US                                       | 7,276,489 B2    | 05-20-2004                  | Agrawal, et al.                                 |   |
|                       | AB1      | US                                       | 2002 0132788 A1 | 09-19-2002                  | Lewis, et al.                                   |   |
|                       | AC1      | US                                       | 2003 0143204 A1 | 07-31-2003                  | Lewis, et al.                                   |   |
|                       | AD1      | US                                       | 2003 170273 A1  | 09-11-2003                  | O'Hagan, et al.                                 |   |
|                       | AE1      | US                                       | 2003 0225016 A1 | 12-04-2003                  | Fearon, et al.                                  |   |
|                       | AF1      | US                                       | 2004 005667 A1  | 01-08-2004                  | Ratti, et al.                                   |   |
|                       | AG1      | US                                       | 2004 0106567 A1 | 06-03-2004                  | Hagstrom, et al.                                |   |
|                       | AH1      | US                                       | 2005 0037494 A1 | 02-17-2005                  | Hecker, et al.                                  |   |
|                       | AI1      | US                                       | 2005 0059624 A1 | 03-17-2005                  | Hoerr et al.                                    |   |
|                       | AJ1      | US                                       | 2005 0064596 A1 | 03-24-2005                  | Riemen, et al.                                  |   |
|                       | AK1      | US                                       | 2005 0250723 A1 | 11-10-2005                  | Hoerr et al.                                    |   |
|                       | AL1      | US                                       | 2006 0172968 A1 | 08-03-2006                  | Lipford et al.                                  |   |
|                       | AM1      | US                                       | 2006 0241076 A1 | 10-26-2006                  | Uhlmann, et al.                                 |   |

| FOREIGN PATENT DOCUMENTS |          |   |                |                                |   |   |                |
|--------------------------|----------|---|----------------|--------------------------------|---|---|----------------|
| Examiner Initials*       | Cite No. | Foreign Patent Document                         |                | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear | T <sup>1</sup> |
|                          |          | Country Code* - Number* - Kind Code* (if known) |                |                                |   |   |                |
|                          | BI       | EP  | 0 839 912      | 05-06-1998                     | Instituut Voor Dierhouderij En                  |   |                |
|                          | BJ       | WO  | 1990/011092    | 10-04-1990                     | Vical Inc.                                      |   |                |
|                          | BK       | WO  | 1993/014778    | 08-05-1993                     | Vical Inc                                       |   |                |
|                          | BL       | WO  | 1997/041210    | 11-06/1997                     | Duke Univ.                                      |   |                |
|                          | BM       | WO  | 2000/075304    | 12-14-2000                     | Aventis Pasteur                                 |   |                |
|                          | BN       | WO  | 2001/021810 A1 | 03-29-2001                     | Aventis Pasteur                                 |   |                |
|                          | BO       | WO  | 2001/093902    | 12-13-2001                     | Biosynexus Inc                                  |   |                |

|                               |                                 |                            |
|-------------------------------|---------------------------------|----------------------------|
| <b>Examiner<br/>Signature</b> | /Jennifer Dunston/ (04/07/2008) | <b>Date<br/>Considered</b> |
|-------------------------------|---------------------------------|----------------------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IPFW. Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

|   |   |    |                             |                               |                 |
|---|---|----|-----------------------------|-------------------------------|-----------------|
| Substitute for form 1449/PTO  |   |    | <b>Complete if Known</b>    |                               |                 |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    | <b>Application Number</b>   | 10/729,830-Conf. #8653        |                 |
|   |   |    | <b>Filing Date</b>          | December 5, 2003              |                 |
|   |   |    | <b>First Named Inventor</b> | Florian Van der Mulbe         |                 |
|   |   |    | <b>Art Unit</b>             | 1636                          |                 |
|   |   |    | <b>Examiner Name</b>        | Jennifer A. Dunston           |                 |
| <b>Sheet</b>  | 2 | of | 3                           | <b>Attorney Docket Number</b> | 22122-00009-US1 |

| FOREIGN PATENT DOCUMENTS |                       |  |                                |   |   |                |
|--------------------------|-----------------------|--|--------------------------------|---|---|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document<br>Country Code <sup>2</sup> -Number <sup>3</sup> -Kind Code <sup>4</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear | T <sup>5</sup> |
|                          | BP                    | WO 2003/059381   | 07-24-2003                     | Curevac Gmbh                                    |   |                |
|                          | BQ                    | WO 2003/086280   | 10-23-2003                     | Coley Pharmaceutical Gmbh                       |   |                |
|                          | BR                    | WO 2006/008154   | 01-26-2006                     | Curevac Gmbh et al.                             |   |                |
|                          | BS                    | WO 2006/024518   | 03-09-2006                     | Curevac Gmbh et al.                             |   |                |

| NON PATENT LITERATURE DOCUMENTS |                       |   |  |  |  |                |
|---------------------------------|-----------------------|---|--|--|--|----------------|
| Examiner Initials*              | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |  |  |  | T <sup>5</sup> |
|                                 | CL                    | BOCZKOWSKI ET AL., "Dendritic Cells Pulsed With RNA are Potent antigen-Presenting Cells in Vitro and in Vivo", Journal of Experimental Medicine, 184, 465-472, 1996.  |  |  |  |                |
|                                 | CM                    | BOCZKOWSKI ET AL., "Induction of tumor immunity and cytotoxic T lymphocyte responses using dendritic cells transfected with messenger RNA amplified from tumor cells." Cancer Research. 60: 1028-1034, Feb 15, 2000.  |  |  |  |                |
|                                 | CN                    | CHENG W F ET AL, "Enhancement of Sindbis virus self-replicating RNA vaccine potency by linkage of mycobacterium tuberculosis heat shock protein 70 gene to an antigen gene" Journal Of Immunology, 166:6218-6226, May 2001                                      |  |  |  |                |
|                                 | CO                    | CHENG, W. F. ET AL., "Enhancement of Sindbis virus self-replicating RNA vaccine potency by linkage of mycobacterium tuberculosis heat shock protein 70 gene," J. Virol., 75(5):2368-2376, March 2001  |  |  |  |                |
|                                 | CP                    | CONRY RM ET AL., "Characterization of a messenger RNA polynucleotide vaccine vector." Cancer Research 55(7):1397-1400, 1995   |  |  |  |                |
|                                 | CQ                    | GRYAZNOV S M: "Oligonucleotide N3'->P5' phosphoramidates as potential therapeutic agents" Biochimica et Biophysica Acta. Gene Structure And Expression, 1489:131-140, 1999  |  |  |  |                |
|                                 | CR                    | HEIDENREICH, O., ET AL., "Chemically modified RNA: approaches and applications." FASEB Journal, 7(1): 90-96, 1993   |  |  |  |                |
|                                 | CS                    | HEISER ET AL., "Induction of polyclonal prostate cancer-specific CTL using dendritic cells transfected with amplified tumor RNA." J. Immunol. 166:2953-2960, March 2001.  |  |  |  |                |
|                                 | CT                    | LOGING ET AL., "Identifying potential tumor markers and antigens by database mining and rapid expression screening." Genome Res. 10:1393-1402, 2000.  |  |  |  |                |
|                                 | CU                    | SAENZ-BADILLOS ET AL., "RNA as a tumor vaccine: a review of the literature." Exp Dermatol. 10(3):143-54, June 2001.   |  |  |  |                |
|                                 | CV                    | SCHIRRMACHER, V. et al., "Intra-pinna anti-tumor vaccination with self-replicating infectious RNA or with DNA encoding a model tumor antigen and a cytokine," Gene Therapy 7(13):1137-1147, July 2000   |  |  |  |                |

|                           |                        |
|---------------------------|------------------------|
| <b>Examiner Signature</b> | <b>Date Considered</b> |
|---------------------------|------------------------|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(ii)) because that application was filed after June 30, 2003 or is available in the IPFW. \* Applicant's unique citation designation number (optional). \* See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. \* Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \* For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \* Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. \* Applicant is to place a check mark here if English language Translation is attached.

578786

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /JD/

|   |   |    |                             |                               |                 |
|---|---|----|-----------------------------|-------------------------------|-----------------|
| Substitute for form 1449/PTO  |   |    | <b>Complete if Known</b>    |                               |                 |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    | <b>Application Number</b>   | 10/729,830-Conf. #8653        |                 |
|   |   |    | <b>Filing Date</b>          | December 5, 2003              |                 |
|   |   |    | <b>First Named Inventor</b> | Florian Van der Mulbe         |                 |
|   |   |    | <b>Art Unit</b>             | 1636                          |                 |
|   |   |    | <b>Examiner Name</b>        | Jennifer A. Dunston           |                 |
| <b>Sheet</b>  | 3 | of | 3                           | <b>Attorney Docket Number</b> | 22122-00009-US1 |

| NON PATENT LITERATURE DOCUMENTS |                          |   |                |  |
|---------------------------------|--------------------------|---|----------------|--|
| Examiner<br>Initials            | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book,<br>magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city<br>and/or country where published. | T <sup>2</sup> |  |
|                                 | CW                       | SU ET AL., "Enhanced induction of telomerase-specific CD4(+) T cells using dendritic cells transfected with RNA encoding a chimeric gene product" Cancer Research. 62:5041-5048, September 2002   |                |  |
|                                 | CX                       | WEISSMAN ET AL., "HIV gag mRNA transfection of dendritic cells (DC) delivers encoded antigen to MHC class I and II molecules, causes DC maturation, and induces a potent human in vitro primary immune response." J. Immunol. 165:4710-4717, October 2000.            |                |  |
|                                 | CY                       | WOODBERRY T ET AL: "Immunogenicity of a human immunodeficiency virus (HIV) polytope vaccine containing multiple HLA A2 HIV CD8+ cytotoxic T-cell epitopes" Journal of Virology 73(7):5320-5325 July 1999  |                |  |
|                                 | CZ                       | ZHOU ET AL. "RNA melanoma vaccine: induction of antitumor immunity by human glycoprotein 100 mRNA immunization." Human Gene Therapy 10: 2719-2724, 1999.  |                |  |

|                               |  |                            |  |
|-------------------------------|--|----------------------------|--|
| <b>Examiner<br/>Signature</b> |  | <b>Date<br/>Considered</b> |  |
|-------------------------------|--|----------------------------|--|

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IPFW. \* Applicant's unique citation designation number (optional). \* See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901:04. \* Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \* For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \* Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. \* Applicant is to place a check mark here if English language Translation is attached.

578786

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /JD/